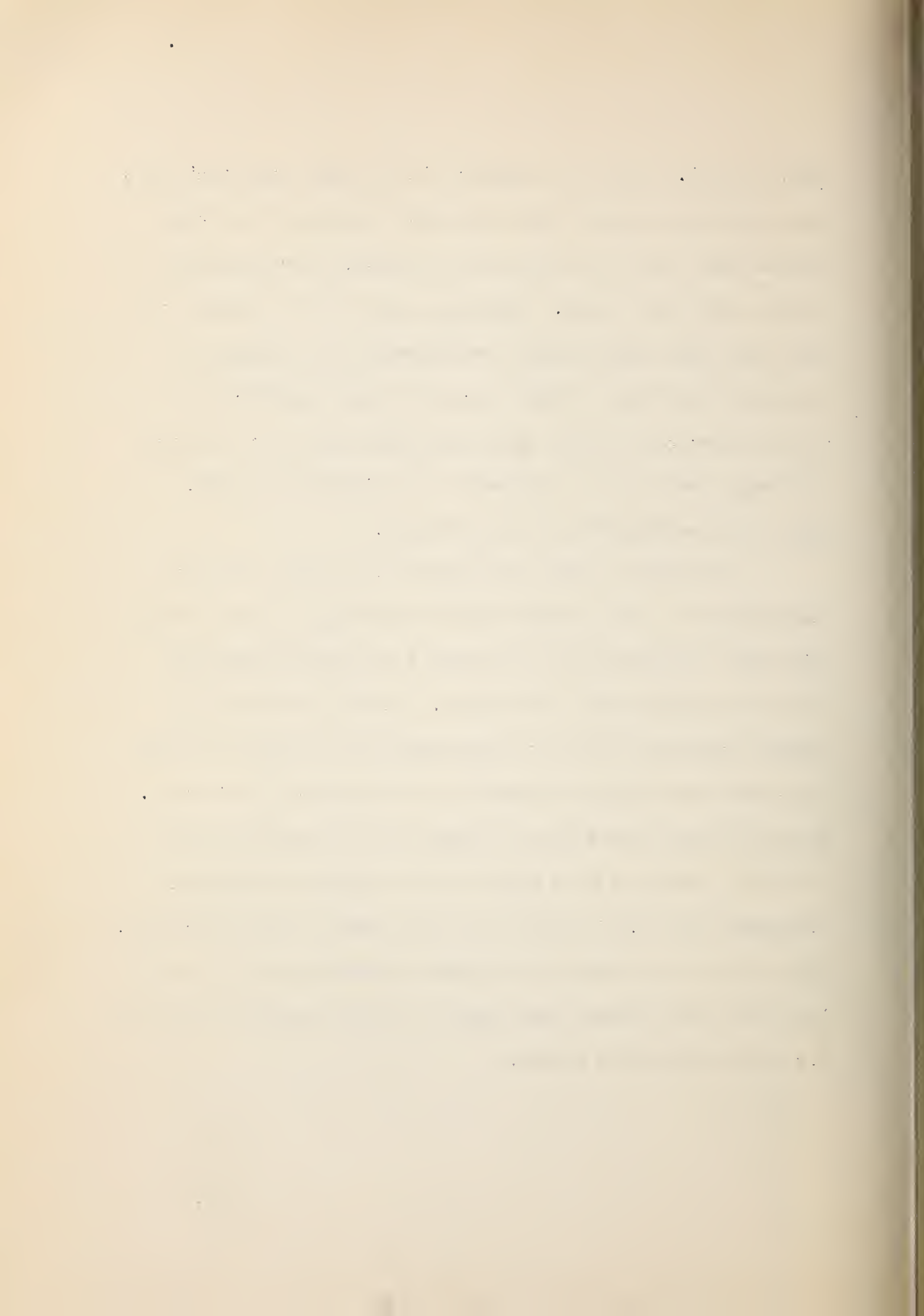
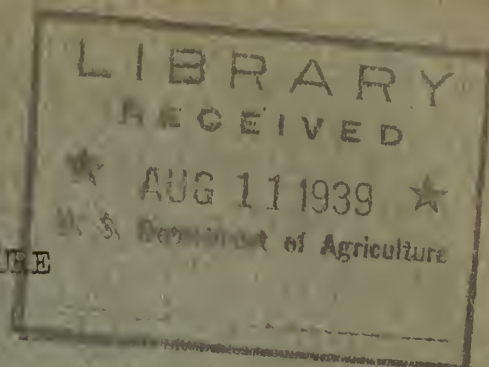


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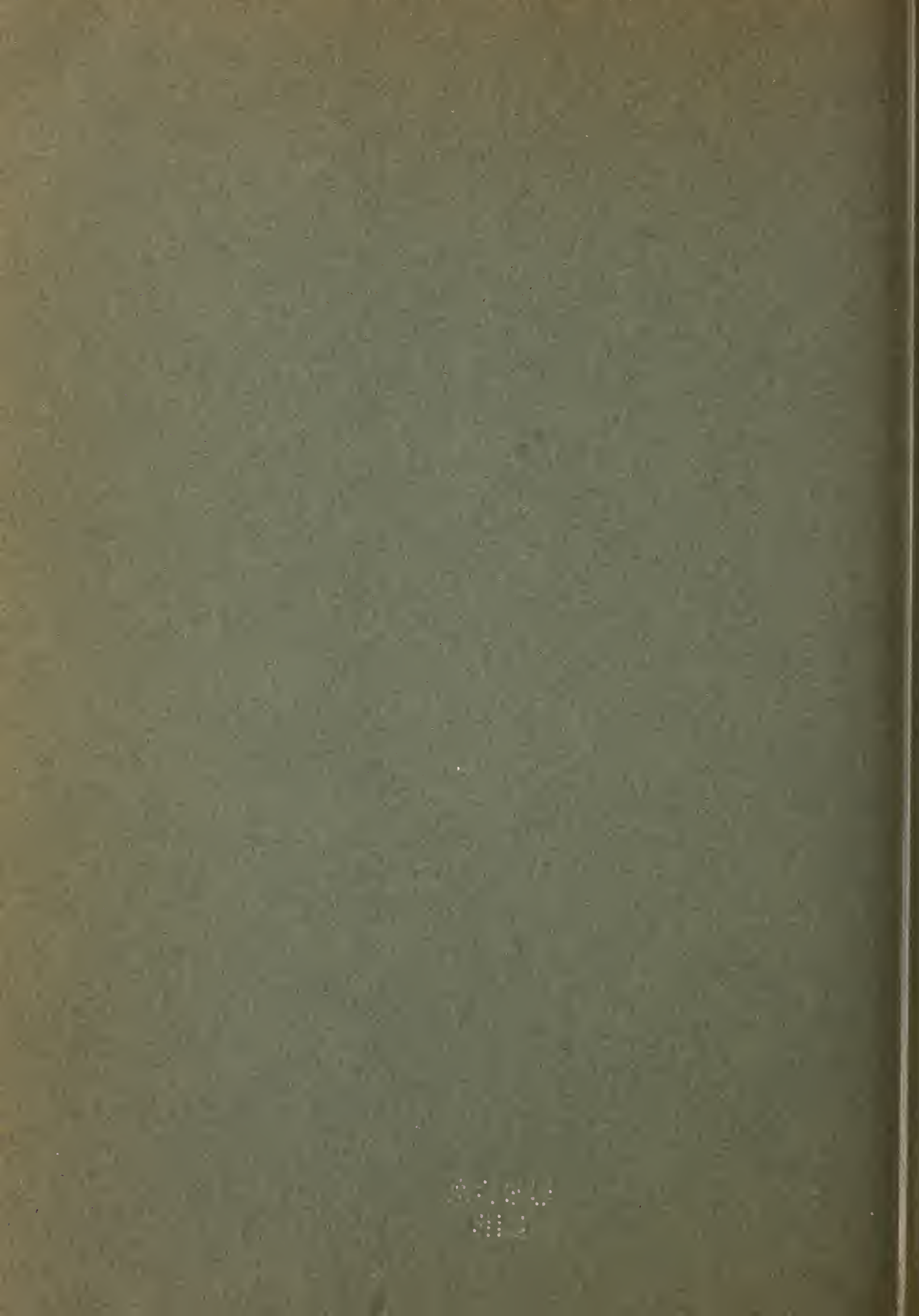
UNITED STATES DEPARTMENT OF AGRICULTURE  
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HANDLING OF A CASH CROP

(Chili)

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The following paper is based on a study of the production and marketing of chili made in December, 1935. This study was designed to clarify and make more precise the characteristics of non-commercial agriculture. Since it was observed that an invariable characteristic of what has been called non-commercial agriculture was the production of a cash crop, the study was directed towards the determination of the economic needs of the non-commercial village population and the appropriateness of the chili crop as a mechanism pointed toward the satisfaction of these needs. Special attention was paid to the consequences of this type of commercialism as it related to the security of the agricultural population.

The area studied includes the irrigated lands along three tributaries of the Rio Grande in Santa Cruz Valley, Pojoaque Valley, and Lower Chama Valley. Merchants' statistics on marketing and prices, chili producing villagers, and the County Agent of Rio Arriba County were consulted in the preparation of the report.





Agricultural practices in the Tewa Basin have a consistency which is in part attributable to the more or less even distribution of resources both physical and technical, attributable in part to the cultural and racial homogeneity of the population. Approximately 85 per cent of the population of the Tewa Basin is Spanish-American with records of continuous family occupancy of land for 100 years or more.

The land available for use is only that land which is irrigable -- land which under present distribution would average no more than  $4\frac{1}{2}$  acres per family of five. Approximately 80 per cent of the native families in the Tewa Basin would be represented in a range of from 1 to 8 acre land holdings. The water supply is uncertain and is generally insufficient for irrigation needs. The streams are heavily silted by erosion and periodically the Rio Grande changes its course, washing away acres of cultivated land.

Agriculture in the Tewa Basin remains predominantly non-commercial. Diversified farming is practiced on small land holdings. The larger part of the acreage is in basic subsistence crops -- wheat and corn. Both wheat and corn are ground into flour at local mills and provide a medicum of security, assuring some bread and tortillas, for the winter. More often than not the wheat and corn grown is insufficient to supply the family's need



for flour, and a supplement must be made through purchase at the store. A small garden in which melons, peas, some beans and onions are grown is usual in the area. Alfalfa production is less widely distributed in the Tewa Basin. As a rotation crop for chili it has some popularity and on the larger land holdings it is sometimes grown commercially. However, it is not a major crop, particularly for the small Spanish-American land owner.

It should be clear that the area does not subsist entirely upon the foods it produces. When the native's income permits no surplus for food the diet will consist of tortillas, beans, chili, and coffee. An insufficiency of wheat requires recourse to the tradesman. Beans are never produced in the quantities in which they are consumed. Coffee and sugar are constant necessities which must be bought. The lard required for frying the tortillas and the baking powder for bread are all far beyond the scope of native production. Chili alone is regularly produced in surplus of diet requirements.

This agricultural deficiency is not a recent development. In 1875 the land was overcrowded. The coming of the railroad and the employment of native labor developed a subsidiary source of income which continued on an extensive scale until 1929. It is estimated that one person from each family was a wage worker in the beet fields, the mining camps, the sawmills, the sheep camps and on the railroad. Wages varied from \$40 to \$100 a month, and



with this steady stream of money into the region the economy was sufficient. After 1929 there was a shrinkage in both employment and wages. Men returned to the farms which their wives and families had been tending in their absence, and it was once more obligatory that the region support itself from its agricultural resources. This it was progressively less able to do. Government relief, in the form of grocery orders, came into the area to supplement a deficient livelihood. In May of 1935 it was estimated that 60 per cent of the population was receiving some form of government aid.

Throughout this period chili was being produced for sale. It represented a surplus before 1929. The history of chili is characteristic of commercial operations. In years of relative plenty, when the dependence on chili was not great, a string of chili brought about \$1.50. In 1933, when dependence on chili was heavy, the price was in the neighborhood of 50 cents a string. At present chili is the important commercial crop in the area. It is, with the possible exception of relief orders, the principal means by which flour, beans, lard, sugar, coffee, and clothing become available to the Spanish-American agriculturist.

It is of considerable importance at the outset to make the distinction between a commercial crop and a cash crop. Although cotton is one of America's most prominent commercial crops the Negro share-cropper would not readily consider it a cash crop.





It is worth pointing out that the same distinction applies to chili. Although it is an important means of bringing necessary commercial commodities to the Spanish-American agriculturist it brings very little cash. Chili itself substitutes for cash.

Considered objectively, the system which chili makes possible is a barter system -- but a barter system which is sufficiently differentiated from older types to merit additional attention. To begin with, this is not an exchange between two producers. It is true that direct barter between producers is still practiced in the area, but not extensively. Direct exchange among producers will be considered at another point in the paper.

Here we are concerned with a transaction between two groups who are functionally distinct. Older systems of barter were relatively limited in scope. Ultimate consumption of the products bartered was in sight. The relationship between production and consumption was an intimate one. In the chili transaction the Spanish-American native still consumes directly those products for which his chili is exchanged. The merchant, however, neither consumes nor produces the products which he gives or receives in exchange.

The merchant must convert this chili into cash. In the process of accomplishing this conversion, the merchant becomes directly dependent upon numerous commercial factors such as business depression, financial panics, industrial unemployment and



credit shrinkage. This dependence is passed on to the more or less unwitting native through the medium of price. There was a time in the Tewa Basin when the agricultural economy was relatively simple. With the introduction and dependence upon a commercial crop, livelihood becomes more complex. As a necessary corollary of this increased complexity the relative autonomy of the past is replaced by an increasing dependence upon factors which are, to the native, both incomprehensible and uncontrollable.

If we follow chili to the market we shall be able to see more concretely some of the problems involved. The chili crop begins to be ready for marketing at the beginning of October. During most of September and the early part of October, chili is picked and piled. Most often it is piled in the house -- occasionally out-of-doors. The task of picking the chili is predominantly women's. When the chili is piled it is sorted daily. The riper pods are strung and hung to dry in the sun. At this period of the year the adobe houses in the Pojoaque, Chama, and Santa Cruz valleys are covered with strings of red chili.

When the strings have dried in the sun the bulk of them are taken to the store. The average annual production of chili for sale in these three valleys is estimated at about 60,000 strings. Of these the Bond & Nohl store in Espanola accounts for approximately 15,000 strings annually, the Reuth & Kramer store for another 15,000 strings and Murrhage Brothers, of Espanola, for an



additional 8,000 strings. Thus, well over 50 per cent of all chili marketed in the area is marketed through three merchants.

When the strings of chili are taken to the store they are graded and priced. In general three grades are recognized. In 1934 the first grade of chili brought 60 cents a string, the second grade about 50 cents a string and the third grade proportionately less. A string of chili in order to be considered first grade must be at least five feet in length, must be closely strung, and must have a minimum of rotten peppers on the string. Prices are geared to the lower limit of the grade. That is to say, if a five foot string brought 60 cents in 1934 a five-foot three-inch string brought no more.

Although price is conceived in terms of currency, in actual fact little or no cash passes between the merchant and the chili grower. As is usual in areas with a deficient economy, indebtedness is always at least one step in advance of repayment. There is a constant need for consumption credit and this is the service that the merchant principally supplies. Bond & Nohl reckons a current indebtedness of \$15,000 annually. This indebtedness is principally secured by the chili crop.

Bond & Nohl adopts a general policy of an extension of \$35 credit to the families with whom it trades. This varies up or down with the families' credit history at the store and the families' supplemental income. However, for the families depending





upon agricultural produce for income, a general limit of \$35 is imposed. This credit advance is secured by next year's chili crop.

If it is borne in mind that at none of the stores is cash paid for chili, the extension of credit as a mechanism of control is implied. It is theoretically possible for a chili crop in any given year to pay off accumulated indebtedness to the store and to allow something above what is owed. This occasionally happens. Even in these cases no cash passes hands. In virtually all instances the surplus above debts is spent at once at the store. When an unspent surplus exists, that is when the chili crop brings more at the store than the accumulated indebtedness plus the current purchases, a credit is given for a certain amount of merchandise. In short, regardless of whether the crop is mortgaged in part or in full for indebtedness due, the chili grower must still purchase to the full extent of his purchasing capacity at the store which markets his chili.

The effect of this is not far to seek. The bargaining power of the purchaser is destroyed and he becomes subject to a price scale which is to a degree determined by conditions of monopoly. The chili grower is, by and large, deprived of the right to buy at the cheapest price and to sell at the dearest. This, in an economy which provides only a scant margin of safety, is an important deprivation.



Two sets of prices obtain at the store. Merchandise is offered at one price for cash and at 10 per cent more if the transaction is a credit transaction. A practical rule of thumb serves to divide credit from cash. Purchases which are paid for in money command a cash price; purchases which are paid for by goods are subject to a 10 per cent mark up.

It is estimated that about one-half of the chili marketed by the merchants in the Tewa Basin is marketed in ground form. All chili received from the local grower is received in string form. The merchant must then have the chili unstrung. He then sells it in ground form. This process of stringing chili which must be unstrung for grinding seems to be very wasteful of labor. The chili market is fairly stable. The proportion between ground chili and string chili remains relatively constant from year to year. Each of the merchants deals with approximately the same producers over fairly long periods of time. Consequently, it would appear that somewhere in the neighborhood of half the chili marketed through the merchants in the Tewa Basin does not have to be strung at all. A saving of from an hour to an hour and a half of labor per string could be effected if the chili which is to be ground were not strung. Although stringing chili is a very effective means of drying it, wire trays could be used for drying equally well. The investment



would be inconsiderable involving nothing more than some ordinary chicken wire. If this method were used the chilis would be dried in bulk and there would be no necessity of stringing a large part of it.

This proposal has been made as an obvious means of decreasing the labor involved in the processing of chili. However, its efficiency appears obvious out of context only. In context it presents greater complexity. The chili grower in the Tewa Basin seldom selects his own seed. This is accounted for in part by the fact that the great majority of chili producers market their chili in string form only and there is not sufficient chili kept for home consumption to supply the seed for next year's sowing. The native if he has saved some seed, supplies himself with all his seed by unstringing the strings of chili which are to be ground. The native receives the seed for his labor. In addition, labor is sometimes employed at a rate of  $2\frac{1}{2}$  to 3 cents a string in the task of unstringing chili. Where a wage is involved the seed is retained by the merchant who sells it at rates varying from 5 to 10 cents a pound.

If none of the chili that was to be ground were strung, the present supply of cheap seed would be considerably diminished. This is not to say that it would be infeasible to introduce tray





drying into the area. It is, however, important to realize that something more than efficient or inefficient techniques is involved. There are several apparently feasible ways in which tray drying might be introduced, but it is intended here only to point out that the effects of a change in technique will extend not only to matters of productivity but to a whole complex of economic factors as well.

Chili serves as a source of income not only as a crop marketed through a merchant but in other ways as well. Important among these is the wage labor that is made available by the work of picking the peppers from the plant, sorting, and stringing them supplies many of the women and some of the men living on small farms with a supplemental income. The prevailing wage is a dollar a day, and the season is about two or three weeks.

There is a fairly well defined division of labor observed. The task of preparing the land belongs to the men. Sowing, thinning, weeding, cultivating and picking the chili is primarily done by women. In addition, certain types of marketing belong exclusively to the men. The most usual form of marketing--that of marketing through a merchant--is participated in by both men and women. There is, however, one form of marketing in which



the women have little part.

An estimated 65 per cent of all chili produced for sale is handled through the local merchants. The major part of the remaining 35 per cent is trucked. Although a time is recalled by the people of the region when the entire family embarked on extensive trading expeditions in which chili was featured, at present only the men undertake the expedition. Trucking falls naturally into two divisions. Chili is trucked for cash and for merchandise. It is sold to small grocers, restaurant keepers, and private families for cash; or it is bartered to farmers, in areas which do not produce chili, for wheat, corns, beans and potatoes.

It has been the experience of truckers in the Towa Basin that the expense of trucking merchandise for cash seldom is economically justifiable. It is found that the net return from chili trucked will buy less than the same chili would buy at Bond & Nohl or Rueth & Kramer. However, trucking is often forced upon the native. The surplus fruit raised must be trucked because the merchants will not handle perishable produce. In order to make up a truckload and to increase the likelihood of at least a minimum cash return, a certain amount of chili is taken along. Further, when there is a large supply of first grade chili on hand, often sufficient to meet the merchants'



demand, less perfect strings will be refused requiring the producer to develop his own market for his remaining chili. In addition to all of the above, travel is attractive and direct merchandising is apparently a pleasurable activity. Last and perhaps most important of all there are certain cash needs which can often be met in no other way.

Essential to the trucking of chili is some type of motor transportation. This is an initial limitation and one which has probably restricted trucking operations. Transportation facilities are spread somewhat more widely due to the fact that the truck owner often has insufficient produce for sale to make up a truck load, and a form of cooperation results in which two producers will pool their merchandise to make up the load. A further restriction upon direct sale--and one which promises to be extremely effective in suppressing small scale trucking--is an Act passed by the last session of the Colorado legislature which requires all truckers to obtain commercial licenses in Colorado, carry public liability and property damage insurance, and in addition pay three mills per ton mile on all tonnage handled. The cost of complying with the legal requirements of Colorado effectively curtails, if it does not entirely close, the market in Colorado to the small producer in New Mexico





Formerly native truckers travelled as far as Denver with their produce. At present the trip seldom goes beyond Raton which is on the New Mexico Border.

Colorado's legislation affects the Tewa Basin native in still another way. There was until recently a well defined trade going on between the Tewa Basin and the San Luis Valley in Southern Colorado--a trade featuring the exchange of chili and fruit for potatoes and beans. The recent Colorado legislation affects the Colorado truckers as well as those of New Mexico. The expeditions that formerly left the San Luis Valley for Chinayo have virtually disappeared within one year after passage of the law. The effect of the legislation has been increasingly to center the function of exchange in the merchant. Whereas barter exchange between two producers might be and often was to the advantage of both parties with little cost, the necessity of exchange through the merchant insures greater costs.

With the Colorado market closed, the trucking itinerary is virtually confined to New Mexico and is largely determined by the day's sales. The first stop is usually Santa Fe. If the effort to dispose of the merchandise is not completely successful in Santa Fe, the trucker proceeds to Las Vegas. If the remaining produce is not entirely sold in Las Vegas, the journey to Raton is undertaken. Often at some point along the route,



the expedition takes on a barter character. If cash is not forthcoming for the merchandise, the trucker will often accept coffee, sugar, flour, or clothing in exchange in order to terminate a journey that becomes increasingly costly.

No discussion of chili would be complete without some consideration of the question of price. This was reserved for the end not so much because it belonged there as because of the numerous difficulties besetting any attempt to arrive at a set of figures. If the merchant in the area is asked what price was paid for chili in any given year, an answer is forthcoming with all appearances of concreteness and exactitude. Definite prices are quoted for successive years. When the meaning of these prices is examined some question arises as to the degree to which these figures are usable. To begin with, there is a kind of free give and take between the figure at which the merchant takes in the chili and the figure at which he dispenses his articles of trade. That is to say, the price of the merchandise which is accepted in exchange for chili may be at considerable variance from the general price level. Second, the general price level varies from year to year and from locality to locality. Third, the amount of chili that will be classified as first grade chili in any year may differ considerably from year to year, making a substantial difference in real income. Fourth,



the price of chili paid to any producer may vary with the amount of indebtedness due the merchant.

If we bear in mind these basic limitations on the validity of any remarks on price, we may hazard a brief discussion of chili prices. The following list of prices have obtained for chili for the past six years. These prices are for first grade chili; that is, for a chili string 5 feet in length, closely strung, well dried with a minimum of rotten peppers on the string.

1935	-----	\$ .90
1934	-----	.65
1933	-----	.50
1932	-----	.75
1931	-----	.90
1930	-----	1.00

Information gained from Mr. Frank Willard, manager of Bond & Nohl, indicates that the variation in the prices of chili offers a thoroughgoing example of scarcity economics. Mr. Willard believes that an exact correlation exists between the size of the chili crop and the price paid for chili in that year. In 1935, on the basis of an advance estimate in the current crop as 60 per cent of normal, it was decided to pay 90 cents a string for chili. Clearly other factors as well play some part in determining the price of chili. Bond & Nohl claims to set its price primarily on the basis of the estimated size of the

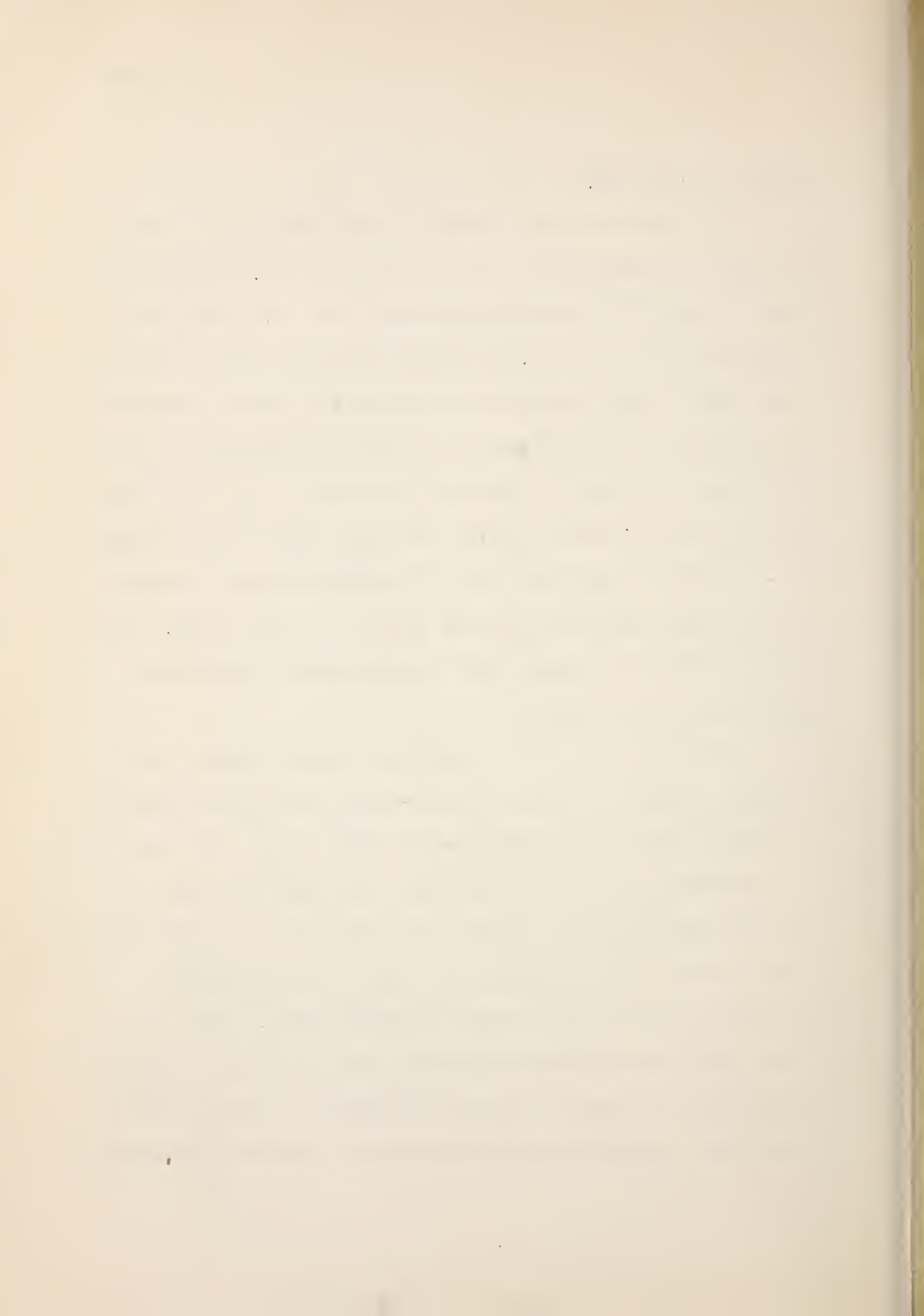




crop in a given year.

In 1934 when chili brought a price of 65 cents a string the crop was estimated to be 75 per cent of normal, and largely upon the basis of this estimate the price was set. If normal production is placed at 60,000 strings the total gross income from chili in 1935 becomes 40,000 strings @ 90 cents or \$36,000. In 1934 the total gross income from chili becomes 45,000 strings at 65 cents or \$29,250. In short, the income on 40,000 strings is more than the income on 45,000 strings. This is not surprising. In fact it has become one of the characteristic features of commercial agriculture and can be shown to apply widely. It is upon just such a premise that the Agricultural Adjustment Administration was launched.

However, there are at least three other important chili producing areas in the United States--one in California, another in south Texas, and a third in southern New Mexico. The fact that the merchants can determine the price to be paid for chili upon the basis of chili production in the Tewa Basin alone indicates that the type of chili grown there is relatively non-competitive and commands a fairly faithful market. This is borne out by the fact that California chili has been consistently cheaper than the chili of northern New Mexico but has not made significant inroads on the specific market. A definite preference



for the native chili of northern New Mexico exists among the Spanish-American and Mexican peoples in New Mexico and Colorado. However, it would be a very mistaken notion to suppose that the extent to which the price may increase is not rigorously defined by factors other than the production of chili in the Tewa Basin. Tastes change more readily than the level of subsistence which supports those tastes. In short, if on the basis of a scarce crop, chili prices are inflated beyond a fairly definite although as yet undetermined point, one of two things will happen. Either one of the other varieties of chili will become highly competitive or the chili consumer will suppress his taste for chili.

An attempt has been made here to indicate something of the ramifications of chili in the Tewa Basin. There clusters around chili not merely a set of agricultural practices, but a total institution. Any work undertaken in the Tewa Basin in the future that involves chili will invite failure if it is not recognized that the ramifications of chili are extensive--they extend not only to the native economy but through the economy to the total culture. This is a prophecy made more or less after the fact. Rural Rehabilitation in the area has made reimbursable loans repayment of which is to be made upon the cash returns from the sale of the chili crop. It is reasonably safe to predict tediously slow repayment of all government loans based on chili.

